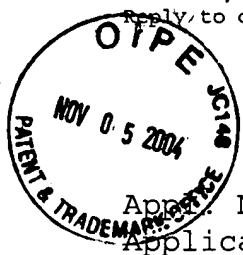


3925



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

App. No. : 10/023,491 Confirmation No. 6559
Applicant : Alexander Lifson et al
Filed : December 18, 2001
TC/A.U. : 3745
Examiner : Christopher M. Verdier

Docket No. : 00-681
Customer No. : 34704

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

AMENDMENT UNDER 37 CFR 1.312

Dear Sir:

This Amendment is submitted after allowance. As the amendments made are to place in effect changes agreed to with the Examiner, it is believed that these amendments raise no new issues and, therefore, should be entered.

Please amend the application as follows:

Amendment to the Specification begins on page 2 of this paper.

Remarks begin on page 4 of this paper.

Please replace the seventh full paragraph on page 3 with the following amended paragraph:

Figure 6 illustrates a typical casing distortion for a conventional compressor under applied pressure load and thermal distortion; ~~and~~

Please replace the eighth full paragraph on page 3 with the following amended paragraph:

Figure 7 illustrates a further embodiment of the present invention having an additional thermal mass for reducing thermal distortion, reinforcing the housing or compensating for pressure loads-; and

Please insert the following new paragraph following the eighth paragraph on page 3:

Figure 8 shows a rotor with decreasing pitch magnitude.

Please replace the fourth paragraph bridging pages 5 and 6 as follows:

The screw rotor profile geometry modification in accordance with one aspect of the present invention is to modify the pitch between lobes of the screw rotor so as to provide a screw rotor having a large pitch at the suction end 16, with this pitch decreasing in a direction toward discharge end 18 of the rotor- (see Figure 8.) This results in the greatest amount of compression, and therefore the greatest load applied to the rotor, occurring at the discharge end of the rotor, and increasing more dramatically as opposed to the gradual buildup as shown in Figure 1. This results in a pressure load distribution on the rotor which is smaller and which generates resultant force F_R at a more desirable location than the pressure

Appl. No. 10/023,91
Amdt. Dated November 2, 2004
Reply to office action of September 27, 2004

load distribution of a conventional rotor as illustrated in
Figure 1.